

# Mineral Industry Surveys

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## COPPER IN JANUARY 2004

Mine production of copper in January declined by almost 5% from that in December 2003 and was essentially unchanged from that in January 2003, according to data compiled by the U.S. Geological Survey. The production decline in January was attributable to lower output at several mines. Refined copper production fell by about 6 % in January and was down by 14% from that in January 2003. Production in January 2003, however, had been particularly high, exceeding the 2003 monthly average by about 13%.

A global tightness in the copper concentrate market was reflected in lower U.S. trade in copper concentrates for 2003 and in part accounted for the substantial (21%) year-on-year decline in primary smelter production. In 2003, net imports of copper contained in copper ores and concentrates declined by 32,000 metric tons (t) (65%): Imports fell by 45,000 t and exports declined by 13,000 t. Net imports of blister and anode of 131,000 t, however, were about 13% above those for 2002. Net imports of refined copper declined to 789,000 t in 2003 from 900,000t in 2002: Imports declined by 45,000 t and exports rose by 67,000 t. The decline in net refined imports reflected both weaker demand and a drawdown in warehouse inventories. Material imported, retained under bond in commodity exchange or other warehouses, and then re-exported, is not accounted for in these trade data.

Net exports of copper scrap (copper and copper alloy) rose to 598,000 t in 2003 from 411,000 t in 2002: Net exports of unalloyed scrap rose to 296,000 t in 2003 (61%) from 184,000 t in 2002 and net exports of alloyed scrap rose to 302,000 t (33%) from 227,000 t in 2002. Total scrap exports to China (including Hong Kong), which accounted for the majority of the increase in both alloyed and unalloyed scrap trade, rose to 482,000 t from 291,000 t in 2002.

Inmet Mining Corp. announced at the end of January that a mechanical failure of one of two semi-autogenous grinding mills had occurred at its Ok Tedi Mine in Papua New Guinea. The company expected to operate at a minimum of 50% of capacity for 2 months while repairs were completed (Inmet Mining Corp., 2004a). Though the company expected to lose only about 3% of its planned production in 2004, the short-term loss of copper concentrate to the custom market was expected to

put additional pressure on smelters which were already facing tight concentrate supplies. In 2003, Ok Tedi produced 196,000 t of copper in concentrate and originally anticipated producing 213,000 t in 2004 (Inmet Mining Corp., 2004b, p. 12-13).

## Update

Copper prices continued to rise in February, the COMEX price rising to a peak of \$1.35 on February 26, and averaging \$1.25 for the month. Prices continued their upward trend in March, the COMEX price reaching a new peak of \$1.38 on March 19, and averaging \$1.34 for the month, the highest level since November 1995. Though the Platts Metals Week average producer price premium remained unchanged in the January to March period at 4.2 cents per pound over COMEX, the New York dealer premium rose from 4.2 cents per pound in January, to 4.8 cents in February, to 5.5 cents in March, and was indicative of tightening copper supplies.

According to preliminary data compiled by the International Copper Study Group (2004, p. 9-21), world mine production of copper in January was about 6% below that for December 2003, principally owing to production shortfalls in Chile, and 4% lower than that in January 2003 owing to the significant cut-back in Indonesian production that began in October 2003. Downstream primary refined production in January was down by about 2% from that in January 2003 and 6% from that of December 2003. World refined copper use rose by 2% and 8%, respectively, from that in January and December 2003. The net result was an apparent production deficit for January 2004 of about 70,000 t and a reported global stock decline of more than 100,000 t. Though data on production and consumption were not available beyond January, the continued decline in copper inventories held on the global metal exchanges (COMEX, London Metal Exchange Ltd., and ShangHai Futures Exchange) signaled a growing production deficit and support for the rise in copper prices. Combined inventories held on these exchanges fell to 711,000 t at the end of January and to 497,000 t at the end of March from 806,000 t at yearend 2003.

## References Cited

Inmet Mining Corp., 2004a, Inmet announces temporary loss of production at Ok Tedi: Toronto, Ontario, Canada, Inmet Mining Corp. press release, January 27, 1 p.

Inmet Mining Corp., 2004b, Inmet Mining announces net income of \$3.21 per share in the fourth quarter: Toronto, Ontario, Canada, Inmet Mining Corp. press release, February 5, 33 p.

International Copper Study Group, 2004, Copper Bulletin—April 2004: Lisbon, Portugal, International Copper Study Group, v. 11, no. 4, 55 p.

TABLE 1  
SALIENT STATISTICS OF THE COPPER INDUSTRY IN THE UNITED STATES<sup>1</sup>

(Metric tons, unless otherwise specified)

	Source table <sup>2</sup>	2003 <sup>p</sup>		2004
		December	Year	January
Production:				
Primary:				
Mine, recoverable	(2)	95,300 <sup>r</sup>	1,120,000 <sup>r</sup>	90,900
Refinery:				
Electrolytic:				
Domestic	(4)	59,300	677,000	53,500
Foreign	(4)	W	W	W
Electrowon	(4)	49,600 <sup>r</sup>	591,000 <sup>r</sup>	48,700
Total	(4)	109,000	1,270,000	102,000
Secondary recoverable copper:				
Refineries	(5)	4,080	53,300	4,190
Ingot makers <sup>4</sup>	(5)	9,890	119,000	9,890
Brass and wire-rod mills	(5)	54,500	674,000	60,500
Foundries, etc. <sup>4</sup>	(5)	5,380	64,600	5,380
Smelter, total	(3)	47,400	539,000	39,700
Consumption:				
Apparent	(8)	174,000	2,470,000	NA
Refined, reported	(7)	181,000	2,300,000	211,000
Purchased copper-base scrap	(9)	93,500	1,150,000	101,000
Stocks at end of period:				
Total refined	(11)	657,000	657,000	578,000
Blister, etc.	(11)	56,800	56,800	49,900
Prices:				
U.S. producer cathode, cents per pound <sup>5</sup>	(12)	103.917	85.012	114.336
Imports: <sup>6</sup>				
Ores and concentrates <sup>7</sup>	(14)	--	27,100	NA
Refined	(14)	61,100	882,000	NA
Exports: <sup>6</sup>				
Ores and concentrates <sup>7</sup>	(15)	360	9,860	NA
Refined	(15)	22,300	93,300	NA

<sup>p</sup>Preliminary. <sup>r</sup>Revised. NA Not available. W Withheld to avoid disclosing company proprietary data; included in "Domestic." -- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits, except prices; may not add to totals shown.

<sup>2</sup>Numbers in parentheses refer to the significant tables where these data are located.

<sup>3</sup>January-April only; excludes withheld data.

<sup>4</sup>Monthly data and 2003 cumulative data estimated based on 2002 monthly average.

<sup>5</sup>Source: Platts Metals Week.

<sup>6</sup>Source: U.S. Census Bureau.

<sup>7</sup>Copper content.

TABLE 2  
MINE PRODUCTION OF RECOVERABLE COPPER IN THE UNITED STATES<sup>1</sup>

(Metric tons)

Period	Recoverable copper			Contained copper		
	Arizona	Others <sup>2</sup>	Total	Electrowon	Concentrates <sup>3</sup>	Total
2003: <sup>P</sup>						
January	62,400	28,600	91,100	49,900	42,300	92,200
February	55,800	26,700	82,500	45,900	37,600	83,500
March	64,100	33,300	97,300	52,000	46,600	98,500
April	59,800	27,600	87,400	47,400	41,100	88,500
May	62,400	31,300	93,700	50,400	44,400	94,800
June	65,100	29,400	94,600	49,600	46,400	96,000
July	63,900	34,200	98,100	49,500	50,100	99,600
August	63,400	31,400	94,700 <sup>r</sup>	50,500 <sup>r</sup>	45,400	95,900
September	59,700 <sup>r</sup>	34,100	93,900	50,600	44,400	94,900 <sup>r</sup>
October	62,300	33,200	95,500 <sup>r</sup>	49,600	47,000	96,600
November	60,200	31,800	92,000 <sup>r</sup>	46,200 <sup>r</sup>	47,000 <sup>r</sup>	93,200 <sup>r</sup>
December	62,000 <sup>r</sup>	33,400 <sup>r</sup>	95,300 <sup>r</sup>	49,600 <sup>r</sup>	46,900 <sup>r</sup>	96,500 <sup>r</sup>
Total	741,000	375,000 <sup>r</sup>	1,120,000 <sup>r</sup>	591,000 <sup>r</sup>	539,000 <sup>r</sup>	1,130,000
2004, January	58,500	32,400	90,900	48,700	43,200	91,900

<sup>P</sup>Preliminary. <sup>r</sup>Revised.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Includes production from Idaho, Missouri, New Mexico, and Utah.

<sup>3</sup>Includes copper content of precipitates and other metal concentrates.

TABLE 3  
COPPER PRODUCED AT SMELTERS IN  
THE UNITED STATES, BY SOURCE<sup>1, 2</sup>

(Metric tons, copper content)

Period	Anode production
2003: <sup>P</sup>	
January	54,200
February	42,300
March	35,700
April	29,700
May	46,000
June	49,700
July	46,600
August	49,200
September	46,000
October	44,100
November	47,800
December	47,400
Year	539,000
2004, January	39,700

<sup>P</sup>Preliminary.

<sup>1</sup>Includes blister, anode and copper from primary or secondary sources.

<sup>2</sup>Data are rounded to no more than three significant digits; may not add to total shown.

TABLE 4  
PRODUCTION OF REFINED COPPER, BY SOURCE AND METHOD OF RECOVERY<sup>1</sup>

(Metric tons)

Period	Primary materials				Scrap	Total refined
	Electrolytically refined <sup>2</sup>		Electrowon	Total		
	Domestic <sup>3</sup>	Foreign				
2003: <sup>p</sup>						
January	69,800	W	49,900	120,000	4,500	124,000
February	60,500	W	45,900	106,000	3,910	110,000
March	60,700	W	52,000	113,000	5,670	118,000
April	46,600	W	47,400	94,000	6,140	100,000
May	46,100	W	50,400	96,500	4,050	101,000
June	53,400	W	49,600	103,000	4,130	107,000
July	57,900	W	49,500	107,000	4,130	111,000
August	55,900	W	50,500 <sup>r</sup>	106,000 <sup>r</sup>	3,910	110,000
September	57,400	W	50,600	108,000	4,220	112,000
October	56,200	W	49,600	106,000	4,490	110,000
November	52,900	W	46,200 <sup>r</sup>	99,200 <sup>r</sup>	4,050	103,000
December	59,300	W	49,600 <sup>r</sup>	109,000	4,080	113,000
Total	677,000	W	591,000 <sup>r</sup>	1,270,000	53,300	1,320,000
2004, January	53,500	W	48,700	102,000	4,190	106,000

<sup>p</sup>Preliminary. <sup>r</sup>Revised. W Withheld to avoid disclosing company proprietary data; included in "Domestic."

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Based on source of material at smelter level.

<sup>3</sup>Includes fire-refined copper.

TABLE 5  
COPPER RECOVERABLE IN UNALLOYED AND ALLOYED FORM FROM PURCHASED COPPER-BASE SCRAP<sup>1</sup>

(Metric tons, copper content)

Period	Refineries <sup>2</sup>		Ingot makers <sup>3</sup>		Brass and wire-rod mills		Foundries, etc. <sup>3</sup>		Total <sup>4</sup>
	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	
2003: <sup>p</sup>									
January	1,410	3,080	2,340	7,550	61,500 <sup>r</sup>	2,990 <sup>r</sup>	2,020	3,360	84,200
February	1,210	2,700	2,340	7,550	53,200 <sup>r</sup>	2,210 <sup>r</sup>	2,020	3,360	74,600
March	1,340	4,340	2,340	7,550	54,200 <sup>r</sup>	1,920 <sup>r</sup>	2,020	3,360	77,100
April	1,340	4,810	2,340	7,550	51,600 <sup>r</sup>	2,920 <sup>r</sup>	2,020	3,360	75,900
May	1,340	2,710	2,340	7,550	52,400 <sup>r</sup>	2,910 <sup>r</sup>	2,020	3,360	74,700
June	1,340	2,790	2,340	7,550	54,300 <sup>r</sup>	2,910 <sup>r</sup>	2,020	3,360	76,600
July	1,340	2,800	2,340	7,550	50,600 <sup>r</sup>	2,750 <sup>r</sup>	2,020	3,360	72,700
August	1,340	2,580	2,340	7,550	52,900 <sup>r</sup>	2,190 <sup>r</sup>	2,020	3,360	74,300
September	1,340	2,880	2,340	7,550	53,900 <sup>r</sup>	2,790 <sup>r</sup>	2,020	3,360	76,200
October	1,340	3,160	2,340	7,550	55,700 <sup>r</sup>	2,880 <sup>r</sup>	2,020	3,360	78,300
November	1,340	2,720	2,340	7,550	50,600 <sup>r</sup>	2,450 <sup>r</sup>	2,020	3,360	72,400
December	1,340	2,740	2,340	7,550	51,600 <sup>r</sup>	2,880 <sup>r</sup>	2,020	3,360	73,800
Total	16,000	37,300	28,100	90,600	642,000 <sup>r</sup>	31,800 <sup>r</sup>	24,300	40,300	911,000
2004, January	1,340	2,860	2,340	7,550	56,900	3,610	2,020	3,360	79,900

<sup>p</sup>Preliminary. <sup>r</sup>Revised.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Electrolytically refined and fire-refined scrap based on source of material at smelter level.

<sup>3</sup>Monthly data and 2003 cumulative data estimated based on 2002 annual data.

<sup>4</sup>Does not include an estimate, based on reported 2002 data, of 3,100 tons per month from new scrap and 2,020 tons per month from old scrap of copper recovered from scrap other than copper-base.

TABLE 6  
PRODUCTION, SHIPMENTS, AND STOCKS OF BRASS AND WIRE-ROD SEMIFABRICATES<sup>1</sup>

(Metric tons, gross weight)

Period	Production		Shipments		Stocks, end of period	
	Brass mills	Wire-rod mills	Brass mills	Wire-rod mills	Brass mills	Wire-rod mills
2003: <sup>p</sup>						
January	119,000	134,000	120,000	142,000	55,200	27,200
February	110,000	139,000	110,000	135,000	55,600	30,400
March	115,000	140,000	114,000	135,000	59,700	34,900
April	115,000	133,000	115,000	130,000	59,500	37,700
May	111,000	128,000	112,000	132,000	58,200	33,400
June	114,000	126,000	114,000	125,000	57,700	34,800
July	107,000	123,000	110,000	126,000	54,800	31,400
August	111,000	140,000	112,000	142,000	53,500	29,900
September	117,000	142,000	118,000	147,000	52,700	24,900
October	120,000	156,000	119,000	159,000	53,700	21,600
November	111,000	139,000 <sup>r</sup>	111,000	136,000 <sup>r</sup>	53,800	24,700 <sup>r</sup>
December	106,000	131,000 <sup>r</sup>	107,000	134,000 <sup>r</sup>	53,600	22,200 <sup>r</sup>
Total	1,360,000	1,630,000 <sup>r</sup>	1,360,000	1,640,000 <sup>r</sup>	XX	XX
2004, January	116,000	158,000	116,000	151,000	53,000	29,400

<sup>p</sup>Preliminary. <sup>r</sup>Revised. XX Not applicable.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

TABLE 7  
CONSUMPTION OF REFINED COPPER<sup>1</sup>

(Metric tons)

Period	Wire-rod mills	Brass mills	Other plants <sup>2</sup>	Total
2003: <sup>p</sup>				
January	131,000	47,200	5,630	184,000
February	140,000	49,600	5,630	195,000
March	142,000	50,000	5,630	198,000
April	133,000	49,500	5,630	188,000
May	131,000	49,900	5,630	187,000
June	130,000	50,400	5,630	186,000
July	122,000	49,500	5,630	177,000
August	143,000	46,800	5,630	195,000
September	143,000	47,400	5,630	196,000
October	157,000	48,900	5,630	211,000
November	140,000 <sup>r</sup>	49,800	5,630	195,000 <sup>r</sup>
December	128,000 <sup>r</sup>	47,400	5,630	181,000 <sup>r</sup>
Total	1,640,000 <sup>r</sup>	586,000	67,600	2,300,000 <sup>r</sup>
2004:				
January:				
Cathodes	156,000	34,200	818	191,000
Wire bars	--	--	(3)	(3)
Ingots and ingot bars	--	1,150	2,230	3,390
Cakes and slabs	--	(3)	(3)	(3)
Billets and other	W	13,800	2,580	16,300
Total	156,000	49,100	5,630	211,000

<sup>p</sup>Preliminary. <sup>r</sup>Revised. W Withheld to avoid disclosing company proprietary data included with "Cathodes." -- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not added to totals shown.

<sup>2</sup>Consumption by ingot makers, chemical plants, foundries, and miscellaneous manufacturers is estimated based on 2002 annual data.

<sup>3</sup>Withheld to avoid disclosing company proprietary data; included with "Billets and others."

TABLE 8  
U.S. APPARENT CONSUMPTION OF COPPER<sup>1</sup>

(Metric tons)

Period	Refined copper production	Copper in old scrap <sup>2</sup>	Refined general imports <sup>3</sup>	Refined exports <sup>3</sup>	Stock change during period	Apparent consumption
2002:						
December	115,000	16,000	83,000	1,460	4,580	208,000
Total	1,440,000	207,000	1,060,000	26,000	74,000	2,610,000
2003: <sup>P</sup>						
January	120,000	19,000 <sup>r</sup>	61,500	2,540	(23,300)	221,000 <sup>r</sup>
February	106,000	17,800 <sup>r</sup>	64,700	766	(68,700) <sup>r</sup>	257,000 <sup>r</sup>
March	113,000	19,200 <sup>r</sup>	52,500	1,510	2,940 <sup>r</sup>	180,000 <sup>r</sup>
April	94,000	20,600 <sup>r</sup>	52,200	606	(4,410) <sup>r</sup>	171,000 <sup>r</sup>
May	96,500	18,500 <sup>r</sup>	56,000	15,900	(73,100) <sup>r</sup>	228,000 <sup>r</sup>
June	103,000	18,600 <sup>r</sup>	51,500	23,000	(59,200)	209,000 <sup>r</sup>
July	107,000	18,500 <sup>r</sup>	40,700	5,080	(36,300)	198,000 <sup>r</sup>
August	106,000 <sup>r</sup>	17,700 <sup>r</sup>	72,700	4,080	5,710	187,000 <sup>r</sup>
September	108,000	18,600 <sup>r</sup>	46,000	4,330	(29,200)	197,000 <sup>r</sup>
October	106,000	19,000 <sup>r</sup>	69,100	4,640	(57,800)	247,000 <sup>r</sup>
November	99,200 <sup>r</sup>	18,100 <sup>r</sup>	63,300	8,470	(25,100) <sup>r</sup>	197,000 <sup>r</sup>
December	109,000	18,500 <sup>r</sup>	57,200	22,300	(11,200) <sup>r</sup>	174,000
Total	1,270,000	224,000	687,000	93,300	(380,000)	2,470,000 <sup>r</sup>
2004, January	10,200	19,400	NA	NA	(78,700)	NA

<sup>P</sup>Preliminary. <sup>r</sup>Revised. NA Not available.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Includes reported monthly production of copper from old scrap of copper-base, an estimate for annual reporters, and a monthly average of copper from non-copper-base materials based on 2002 data.

<sup>3</sup>Source: U.S. Census Bureau.

TABLE 9  
CONSUMPTION OF PURCHASED COPPER-BASE SCRAP<sup>1</sup>

(Metric tons, gross weight)

Period	Smelters and refineries		Ingot makers <sup>2</sup>		Brass and wire-rod mills <sup>3</sup>		Foundries, etc. <sup>2</sup>		Total scrap used
	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	
2003: <sup>P</sup>									
January	1,430	3,130	3,490	10,700	78,100	3,050	3,530	3,730	107,000
February	1,230	2,730	3,490	10,700	67,100	2,270	3,530	3,730	94,800
March	1,350	4,000	3,490	10,700	68,800	1,980	3,530	3,730	97,500
April	1,350	5,440	3,490	10,700	64,400	2,970	3,530	3,730	95,500
May	1,350	2,750	3,490	10,700	65,700	2,960	3,530	3,730	94,200
June	1,380	2,790	3,490	10,700	67,900	2,970	3,530	3,730	96,400
July	1,390	2,780	3,490	10,700	62,800	2,790	3,530	3,730	91,200
August	1,350	2,600	3,490	10,700	65,900	2,230	3,530	3,730	93,600
September	1,350	2,900	3,490	10,700	67,500	2,850	3,530	3,730	96,000
October	1,350	3,180	3,490	10,700	70,200	2,990	3,530	3,730	99,200
November	1,350	2,560	3,490	10,700	63,500	2,550	3,530	3,730	91,300
December	1,350	2,760	3,490	10,700	64,900	2,980	3,530	3,730	93,500
Total	16,200	37,600	41,900	128,000	807,000	32,600	42,300	44,800	1,150,000
2004, January	1,350	2,880	3,490	10,700	71,300	3,730	3,530	3,730	101,000

<sup>P</sup>Preliminary.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Monthly data and 2003 cumulative data estimated from 2002 annual data.

<sup>3</sup>Consumption at brass and wire-rod mills assumed equal to receipts.

TABLE 10  
CONSUMPTION OF PURCHASED COPPER-BASE SCRAP<sup>1,2</sup>

(Metric tons, gross weight)

Scrap type and processor	2003 <sup>p</sup>				2004
	January	November	December	Year	January
No. 1 wire and heavy:					
Smelters and refiners	5,990	5,850	5,850	70,100	5,850
Brass and wire-rod mills	34,600	29,900	30,600	376,000	34,200
No. 2 mixed heavy and light:					
Smelters and refiners	3,730	1,980	2,180	30,800	2,310
Brass and wire-rod mills	738	285	636	5,750	697
Total unalloyed scrap:					
Smelters and refiners	9,710	7,830	8,040	101,000	8,160
Brass and wire-rod mills	35,300	30,200	31,200	381,000	34,900
Red brass: <sup>3</sup>					
All plants	4,200	4,080	4,160	48,900	4,300
Leaded yellow brass:					
All plants	27,000	24,500	25,300	310,000	27,100
Yellow and low brass:					
All plants	9,420	4,540 <sup>r</sup>	3,380	49,800	3,360
Cartridge cases and brass:					
Smelters and refiners	W	W	W	W	W
Brass mills	7,390	5,140	6,390	78,700	7,210
Auto radiators:					
Smelters and refiners	3,470	3,330	3,330	39,900	3,330
Bronzes:					
Smelters and refiners	983	840	840	10,100	840
Brass mills	531	493	426	5,390	533
Nickel-copper alloys:					
All plants	753	1,360	1,330	16,700	1,600
Low grade and residues:					
Smelters and refiners	1,160	1,120	1,120	13,400	1,120
Other alloy scrap: <sup>4</sup>					
Smelters and refiners <sup>5</sup>	194	314	314	3,760	314
Brass mills	429	322	429	4,110	697
Total alloyed scrap:					
Smelters and refiners	10,700	10,200	10,200	123,000	10,200
Brass mills	44,800	35,800	36,700	458,000	40,100
Total scrap:					
Smelters and refiners	20,400	18,100	18,300	224,000	18,400
Brass and wire-rod mills	80,100	66,000	67,900	839,000	75,100

<sup>p</sup>Preliminary. <sup>r</sup>Revised. W Withheld to avoid disclosing company proprietary data; included in "Other alloy scrap: Smelters and refiners."

<sup>1</sup>Does not include: consumption by foundries, chemical plants, and miscellaneous manufacturers, estimated to total about 7,240 tons of scrap per month, based on 2002 annual data; monthly data include estimates of about 14,200 tons of scrap per month consumed by ingot makers.

<sup>2</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>3</sup>Includes composition turnings, silicon bronze, zincy bronze, railroad car boxes, cocks and faucets, gilding metal, and commercial bronze.

<sup>4</sup>Includes refinery brass, beryllium copper, phosphor copper, and aluminum bronze.

<sup>5</sup>Includes items indicated by symbol W.



TABLE 11  
COPPER STOCKS AT END OF PERIOD<sup>1</sup>

(Metric tons)

Period	Crude copper <sup>2</sup>	Refined copper					LME <sup>6</sup>	Total refined
		Refineries <sup>3</sup>	Wire-rod mills <sup>3</sup>	Brass mills <sup>3</sup>	Other <sup>4</sup>	Comex <sup>5</sup>		
2003: <sup>p</sup>								
January	44,100	6,300	43,800 <sup>r</sup>	29,700	3,600	360,000	570,000	1,010,000
February	46,800	3,720	29,400 <sup>r</sup>	23,600	3,600	340,000	544,000	944,000 <sup>r</sup>
March	47,100	5,270	39,900 <sup>r</sup>	23,100	3,600	330,000	545,000	947,000 <sup>r</sup>
April	41,900	3,770	42,800 <sup>r</sup>	17,900	3,600	351,000	524,000	943,000 <sup>r</sup>
May	46,900	7,160	42,500	16,100	3,600	305,000	495,000	869,000
June	45,800	4,750	36,200	21,500	3,600	291,000	453,000	810,000
July	42,300	4,820	28,400	23,700	3,600	282,000	431,000	774,000
August	47,900	5,310	30,100	20,400	3,600	276,000	444,000	780,000
September	44,500	4,100	33,300	19,100	3,600	271,000	419,000	751,000
October	51,700	3,590	23,200	16,700	3,600	267,000	379,000	693,000
November	57,500	6,960 <sup>r</sup>	20,900 <sup>r</sup>	20,700 <sup>r</sup>	3,600	262,000	353,000	668,000 <sup>r</sup>
December	56,800	12,100 <sup>r</sup>	29,700 <sup>r</sup>	21,200	3,600	255,000	335,000	657,000 <sup>r</sup>
2004, January	49,900	9,840	22,500	11,900	3,600	239,000	291,000	578,000

<sup>p</sup>Preliminary. <sup>r</sup>Revised.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Copper content of blister and other materials in transit and in process of refining.

<sup>3</sup>Stocks of refined copper as reported; no estimates are made for nonrespondents.

<sup>4</sup>Monthly estimates based on 2002 annual data, comprising stocks at ingot makers, chemical plants, foundries, and miscellaneous manufacturers.

<sup>5</sup>Commodity Exchange Inc., New York.

<sup>6</sup>London Metal Exchange Ltd., U.S. warehouses.

TABLE 12  
AVERAGE PRICE OF COPPER IN THE UNITED STATES  
AND ON THE LONDON METAL EXCHANGE

(Cents per pound)

Period	U.S. producers delivered price cathode <sup>1</sup>	Comex first position <sup>2</sup>	LME cash price Grade A
2003:			
January	79.529	75.371	74.722
February	81.121	76.963	76.360
March	79.875	75.717	75.234
April	76.365	72.176	71.988
May	78.020	75.045	74.746
June	79.716	76.926	76.484
July	82.245	78.055	77.549
August	84.165	79.995	79.826
September	86.030	81.840	81.152
October	92.290	88.104	87.099
November	96.867	92.681	93.215
December	103.917	99.731	99.831
Year	85.247 <sup>r</sup>	81.050	80.684
2004, January	114.336	110.150	109.911

<sup>r</sup>Revised.

<sup>1</sup>Listed as "U.S. producer cathode."

<sup>2</sup>Listed as "Comex high grade first position."

Sources: Platts Metals Week and American Metal Market.

TABLE 13  
NEW YORK AVERAGE BUYING PRICES FOR COPPER SCRAP

(Cents per pound)

Month	Brass mills No. 1 scrap	Refiners No. 2 scrap	Dealers (New York)	
			No. 2 Scrap	Red brass turnings and borings
2003:				
January	73.67	62.38	46.90	37.33
February	75.55	63.95	52.00	38.00
March	74.69	64.26	52.00	38.00
April	70.82	61.80	49.41	38.00
May	73.95	64.53	49.00	38.00
June	76.29	67.36	49.00	38.00
July	73.86	65.00	46.77	36.27
August	79.48	69.43	49.00	38.00
September	81.96	72.75	54.43	38.00
October	87.09	77.89	55.18	38.00
November	92.22	82.81	59.44	38.44
December	98.76	89.69	67.00	46.00
Year	79.86	70.15	52.51	38.50
2004, January	108.80	98.38	72.60	50.20

Source: American Metal Market.

TABLE 14  
U.S. IMPORTS FOR CONSUMPTION OF COPPER (UNMANUFACTURED), BY CLASS

(Metric tons, copper content)

Country or territory	Ore and concentrate			Matte, ash, and precipitates			Blister and anodes			Refined		
	2003			2003			2003			2003		
	2002	December	January - December	2002	December	January - December	2002	December	January - December	2002	December	January - December
Belgium	--	--	--	--	--	46	--	--	--	34	15	15
Brazil	--	--	--	--	--	--	--	--	(2)	45,000	5,340	11,800
Canada	8,350	--	86	75	36	187	83,700	7,970	83,600	235,000	22,800	218,000
Chile	51,800	--	4,940	--	--	--	37,400	2,910	45,200	245,000	13,700	348,000
Germany	--	--	--	--	--	59	(2)	--	--	3,260	194	8,530
Indonesia	2,910	--	--	--	--	--	--	--	--	--	--	--
Malaysia	--	--	--	17	--	2	--	--	--	--	--	--
Mexico	4	--	22,000	324	34	501	16,200	1,330	10,200	57,200	--	21,600
Namibia	--	--	--	--	--	--	6,340	3,980	17,700	--	--	--
Peru	5,960	--	--	--	--	--	4,730	--	5	288,000	18,600	258,000
Russia	--	--	--	--	--	--	--	--	--	28,800	--	--
Taiwan	17	--	--	621	115	699	--	--	--	10	--	--
Turkey	2,910	--	--	--	--	--	--	--	--	--	--	--
United Kingdom	--	--	--	--	--	--	2	1	2	3,410	--	10,100
Other	2	--	1	2	36	6	70	23	25	21,900	427	6,220
Total	71,900	--	27,100	1,040	185	1,500	148,000	16,200	157,000	927,000	61,100	882,000

-- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Less than 1/2 unit.

Source: U.S. Census Bureau.

TABLE 15  
U.S. EXPORTS OF COPPER (UNMANUFACTURED), BY CLASS<sup>1</sup>

(Metric tons, copper content)

Country or territory	Ore and concentrate			Matte, ash, and precipitates			Blister and anodes			Refined		
	2003			2003			2003			2003		
	2002	December	January - December	2002	December	January - December	2002	December	January - December	2002	December	January - December
Australia	21	--	4	5	--	--	77	11	63	1,650	37	69
Canada	17,500	328	7,540	2,560	968	6,740	17,700	1,430	17,200	3,130	245	2,100
China	1,110	--	1,380	63	--	153	515	--	567	14,900	21,300	71,600
Egypt	--	--	--	--	--	--	--	--	--	2,200	--	--
Germany	28	--	--	85	(2)	(2)	241	20	441	79	--	185
Hong Kong	25	--	27	160	--	74	2,600	257	2,650	38	--	52
India	9	--	--	153	--	175	83	8	118	825	91	1,370
Japan	36	--	107	1,330	--	40	40	--	85	48	--	251
Korea, Republic of	197	--	--	40	4	12	707	67	788	524	520	742
Mexico	2,620	7	224	12,400	76	8,090	38	6	252	135	24	12,200
Netherlands	38	--	--	35	--	1	1,100	--	--	16	11	11
Peru	1,230	--	214	39	20	20	--	--	--	--	--	--
Philippines	--	--	--	3	--	--	5,880	--	44	3	--	163
Singapore	60	--	6	(2)	--	4	614	20	478	7	14	71
Spain	--	18	46	4	--	36	259	20	422	6	--	5
Taiwan	80	--	11	104	--	--	1,000	160	1,270	1,630	--	3,630
United Arab Emirates	16	2	4	--	--	4	7	--	503	36	--	4
United Kingdom	16	(2)	41	65	--	77	469	59	430	527	3	42
Other	79	5	261	87	22	209	1,570	54	808	819	74	866
Total	23,000	360	9,860	17,100	1,090	15,600	32,900	2,110	26,100	26,600	22,300	93,300

-- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Less than 1/2 unit.

Source: U.S. Census Bureau.

TABLE 16  
U.S. COPPER SCRAP TRADE<sup>1</sup>

(Metric tons, gross weight)

Country or territory	Imports						Exports					
	Unalloyed			Alloyed			Unalloyed			Alloyed		
	2003			2003			2003			2003		
	2002	December	January - December	2002	December	January - December	2002	December	January - December	2002	December	January - December
Barbados	229	24	229	18	--	8	--	--	--	--	--	--
Belgium	--	--	--	--	--	46	2,210	162	2,630	7,050	884	6,010
Canada	13,900	218	4,130	38,700	3,730	37,300	20,100	1,460	21,200	19,900	791	17,500
Chile	611	--	18	78	--	--	144	--	--	66	--	4
China	--	--	--	547	90	824	122,000	17,100	225,000	155,000	24,500	245,000
Costa Rica	1,100	119	921	458	37	404	--	--	--	2	--	6
Dominican Republic	1,360	88	1,100	884	41	766	--	--	--	--	--	4
Germany	118	--	19	1,110	735	5,250	14,200	79	7,900	16,400	289	7,680
Guatemala	536	47	474	1,190	45	869	--	--	--	(2)	--	--
Honduras	399	103	534	347	54	488	--	--	--	--	--	--
Hong Kong	3	--	--	--	--	--	7,180	217	2,530	6,140	867	9,600
India	--	--	--	(2)	--	18	3,920	343	5,550	43,500	2,770	45,400
Jamaica	362	66	640	239	13	140	--	--	--	--	--	--
Japan	97	4	77	193	--	261	11,000	503	6,790	9,120	344	9,110
Korea, Republic of	19	--	--	40	--	21	14,900	2,610	25,400	18,700	1,280	15,500
Malaysia	--	--	--	264	21	272	--	--	3,620	243	--	88
Mexico	9,250	1,070	9,950	18,300	1,770	18,700	2,280	269	3,200	248	131	808
Nicaragua	321	22	238	170	24	207	--	--	--	--	20	20
Norway	--	--	351	--	--	39	--	--	--	253	59	377
Panama	173	--	8	792	5	553	--	--	--	79	--	6
Taiwan	15	--	--	389	115	462	10,100	760	8,500	9,060	156	6,860
United Kingdom	155	56	278	1,760	56	781	17	--	97	1,380	66	857
Venezuela	93	59	159	2,090	55	957	--	--	--	--	--	--
Other	496	33	478	3,280	199	2,620	4,680	58	2,940	10,500	819	8,670
Total	29,300	1,910	19,600	70,900	6,990	71,000	213,000	23,500	316,000	298,000	33,000	373,000

-- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Less than 1/2 unit.

Source: U.S. Census Bureau.